



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/623,603

07/22/2003

Haike Guan

R2180.0162/P162

5830

24998 7590 02/05/2009

DICKSTEIN SHAPIRO LLP  
1825 EYE STREET NW  
Washington, DC 20006-5403

EXAMINER

ROGERS, SCOTT A

ART UNIT

PAPER NUMBER

2625

MAIL DATE

DELIVERY MODE

02/05/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/623,603	<b>Applicant(s)</b> GUAN ET AL.	
	<b>Examiner</b> Scott A. Rogers	<b>Art Unit</b> 2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 October 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 2,5-12,16-23,30-33,45-47,49-57 and 59 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2,5-12,16-23,30-33,45-47, 49-57 and 59 is/are rejected.
- 7) ☒ Claim(s) 4,15 and 48 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input checked="" type="checkbox"/> Other: <u>Detailed Action</u> .                  |

Art Unit: 2625

## **DETAILED ACTION**

### ***Double Patenting***

The non-statutory obvious type double patenting rejections laid out in the Office Action mailed 20 August 2007 with respect to US Patents No. 6901236 and US Patent Appl. Nos. 10/922924, 10/982976, and 10/738139 are held in abeyance until the claims in this application are otherwise in condition for allowance.

### ***Response to Arguments***

Applicant's arguments filed 20 October 2008 have been fully considered but they are not persuasive. Applicant argues that Okubo fails to cure the deficiency of Matsunoshita and fails to disclose a differentiation between an image appearing in the foreground image and an image appearing in the background (i.e., from the claims: "detecting a background dot pattern . . . of an original image"). Therefore, Okubo fails to disclose a "*background* dot pattern." Further, applicant states that since Matsunoshita only searches for inhibition patterns as they may exist in a document, the claim rejections should be withdrawn and the claims allowed over the combination of Matsunoshita and Okubo.

First, it is clear to the examiner that the pattern detection section 110 and document decision section 111 in Okubo differentiate whether image data form part of a preselected inhibition pattern, pixel by pixel, and determine, based on the number of pixel data determined to form part of the inhibition pattern, whether or not the image

Art Unit: 2625

data represents an inhibited document. Second, it is clear to the examiner that inhibited documents are surely distinguished from ordinary documents which are allowed to be copied since inhibited documents are formed from sheets on which an inhibition pattern or patterns have been printed or copied beforehand. Therefore, it is understood in the art that the inhibition pattern is a *background* pattern, like a watermark or other background pattern applied beforehand, over which a foreground image is printed, and this inhibition pattern is differentiated to identify and prevent copies of a copy inhibited document. It should also be noted that while both Matsunoshita and Okubo teach differentiation of a background pattern of an original image on a copy prohibited document, Okubo was merely cited to show the use of a *dot pattern* for such a background pattern.

The following rejections have been updated to reflect application of the Matsunoshita and Okubo references to the claims currently pending and in view of the arguments addressed above.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2625

Claims 2, 5-12, 16-23, 30-33, 45-47, 49-57, and 59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsunoshita (US 7227661 B2) in view of Okubo et al (US 5647010 A).

Referring to claims 2, 12, 23, and 45-47:

Matsunoshita discloses storing an anti-copy background pattern (reference patterns of Figs. 5D and 5E), providing image data of an original image (input to part 220), detecting a first background pattern embedded in a background image included in the image data of the original image (function of part 224), comparing the detected first background pattern with the stored anti-copy background pattern (function of part 224); and determining whether the detected first background pattern is substantially identical to the stored anti-copy background pattern (function of part 236). See Fig. 8-9 and col. 17, line 34 to col. 18, line 30 and col. 19, line 50 to col. 22, line 9.

Matsunoshita discloses the image data is data obtained by a reading of the original image with an original reading apparatus, wherein the original reading apparatus is a scanner included in an image processing apparatus. See scanning part 5.

Referring to claims 5, 16, and 49:

Matsunoshita discloses comparing a quantitative characteristic of the detected first background pattern with a quantitative characteristic of the anti-copy background dot pattern. See col. 20, line 35 to col. 21, line 37.

Art Unit: 2625

Referring to claims 56, 57, and 59:

Matsunoshita discloses the first background pattern is generated together with the original image. See image generated by image composing part 522.

Referring to all the above claims:

While Matsunoshita does not disclose using a *dot pattern* as the background pattern, the use of background dot patterns for copy protection is known. Okubo et al teach an inhibition pattern 201 formed on an entire surface of a sheet before a foreground image is printed on the sheet (i.e., the inhibition pattern forms a background image) to allow detection of a copy inhibited document and prevent unauthorized duplication by differentiation of the background inhibition pattern. The inhibition pattern in Okubo is a mesh image which forms a pattern of black pixels or dots. See col. 7, lines 38-61.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Matsunoshita to have used a background dot pattern as taught in Okubo et al in order to surely and easily identify copy-inhibited documents and prevent unauthorized copying. See abstract and col. 6, lines 58-67.

Referring to claims 6-9, 17-20, 30-31, and 50-53:

Note with respect to claim 30 in part, the correspondence to claims 5, 16, and 49 addressed above. While not disclosed by Matsunoshita, Okubo et al disclose determining if a quantitative characteristic of the background dot pattern includes quantitative characteristic of a base area (white background) included in the background dot pattern. The quantitative characteristic of the background dot pattern includes

Art Unit: 2625

quantitative characteristic of a message area included in the background dot pattern (illustrated by the number "1" in the figures). Therefore, the quantitative characteristic of the background dot pattern includes quantitative characteristic of a base area and a message area both included in the background dot pattern. See col. 7, line 62 to col. 8, line 63. The pattern identity determining mechanism determines that the detected background dot pattern is substantially identical to the anti-copy background dot pattern when a difference between quantities of the detected background dot pattern and the anti-copy background dot pattern is smaller than a predetermined threshold value. See col. 9, line 12.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Matsunoshita to have determined quantitative characteristics of the anti-copy background dot pattern and identified the pattern as taught in Okubo et al in order to surely and easily identify copy-inhibited documents and prevent unauthorized copying.

Referring to claims 10-11, 21-22, 32-33, and 54-55:

Both Matsunoshita and Okubo disclose a mechanism and step to prevent the image data from being printed or output when the detected background dot pattern is determined as substantially identical to the anti-copy background dot pattern by the pattern identity determining mechanism or step. In Matsunoshita see col. 17, lines 53 to col. 18, line 12 and other discussions of the "normal copy mode". In Okubo see col. 7, line 26-37 and other discussions of section 111, 112, and 113.

Art Unit: 2625

***Allowable Subject Matter***

Claims 4, 15, and 48 would be allowable if rewritten to include all of the limitations of the base claims, and the double patenting rejections, set forth in the Office action mailed 20 August 2007, are overcome.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott A Rogers whose telephone number is 571-272-7467. The examiner can normally be reached Monday through Friday 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ed Coles can be reached at 571-272-7402.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to TC2600 Customer Service at 571-272-2600. Official correspondence by facsimile should be sent to 571-273-8300. The USPTO contact Center phone numbers are 800-PTO-9199.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Scott A Rogers/

Primary Examiner, Art Unit 2625

30 January 2009